3DTC Module

(Basic version)

Layout stage .4

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WARNING

CHARGED CAPACITORS ON THE SERVO BOARD MAY DAMAGE THE CD DRIVE ELECTRONICS WHEN CONNECTING A NEW CDM MECHANISM. THAT´S WHY, BESIDES THE SAFETY MEASURES LIKE
- ***SWITCH OFF POWER SUPPLY***
- ***ESD PROTECTION***

ADDITIONAL ACTIONS MUST BE TAKEN BY THE REPAIR TECHNICIAN.

The following steps have to be done when replacing the CD mechanism:

1. Disconnect CD drive flexfoil from old CD drive
2. Connect paperclip to CD drive flexfoil to short-circuit flexfoil (fig.1)
3. Remove old CD drive
4. Remove short-circuit from flexfoil of CD drive
5. Connect flexfoil to new CD drive
6. Position new CD drive in its studs
7. Remove short-circuit from Laserunit

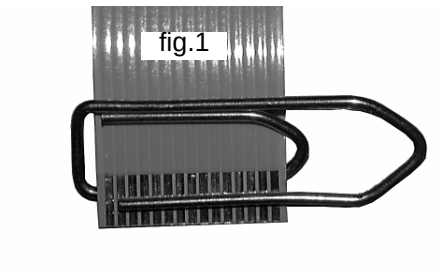
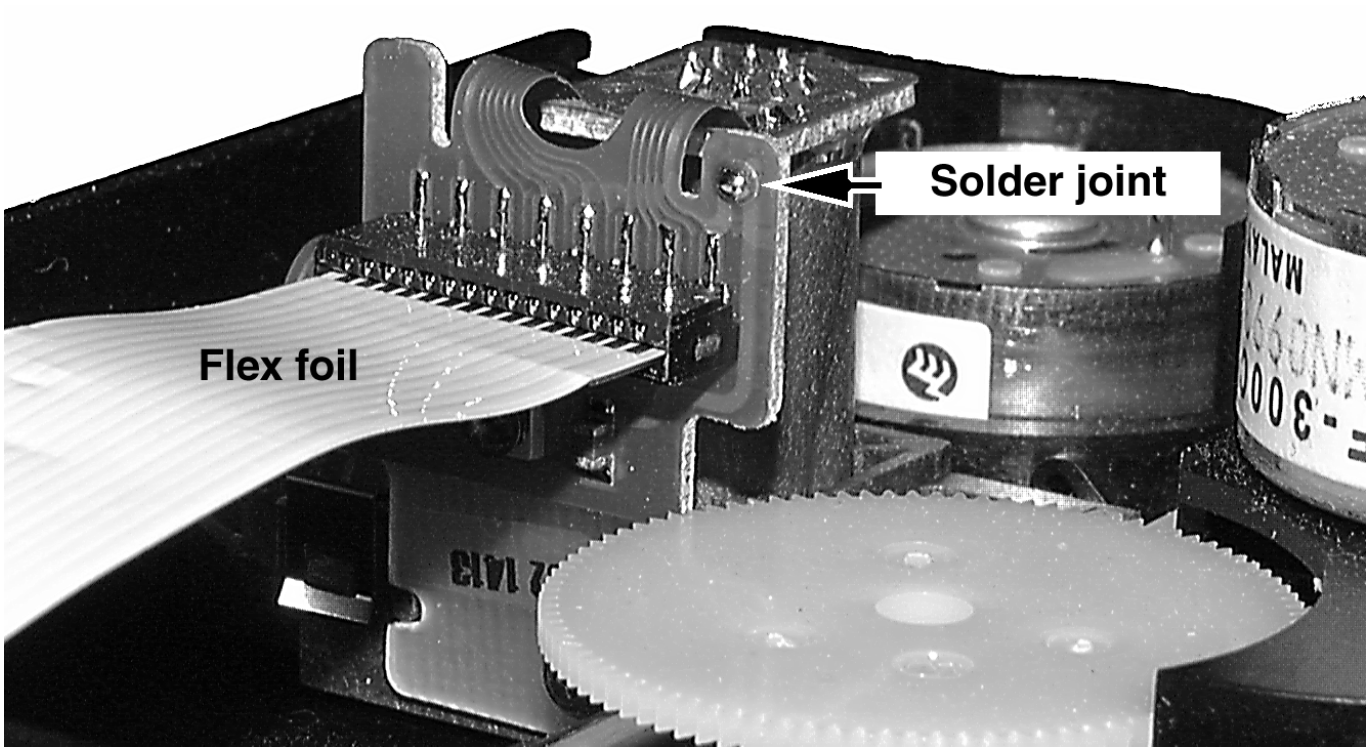


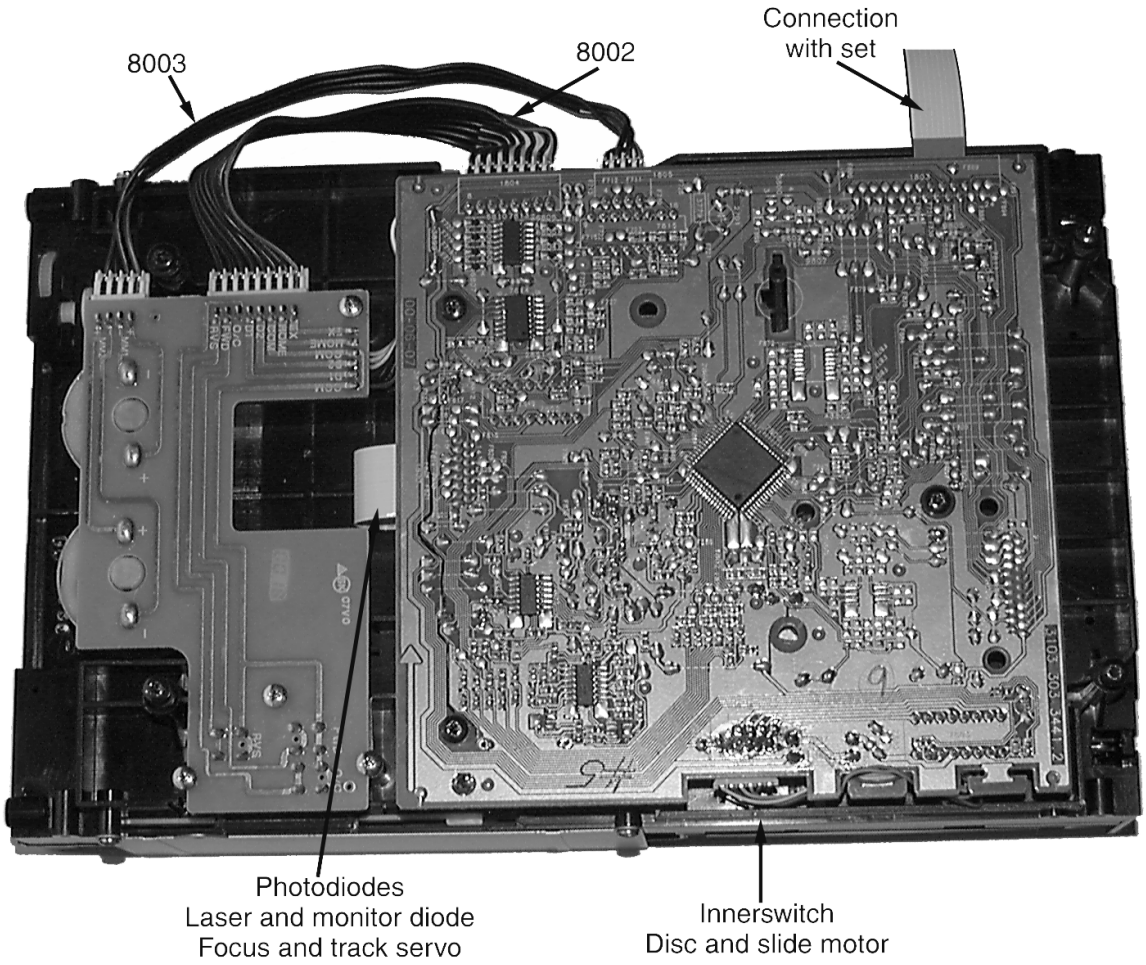
fig.1

Attention: The laser diode of this CD drive is protected against ESD by a solder joint which shortcircuits the laserdiode to ground.
For proper functionality of the CD drive this solder joint must be removed **after** connection the drive to the set.



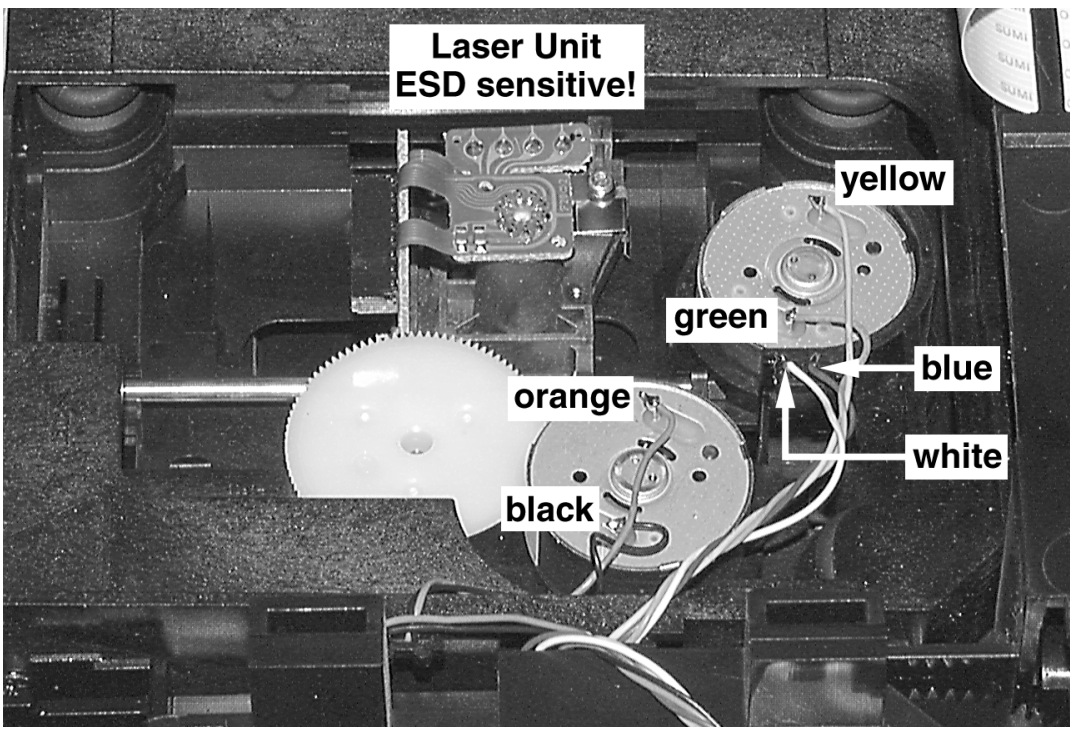
WIRING

Module



WIRING

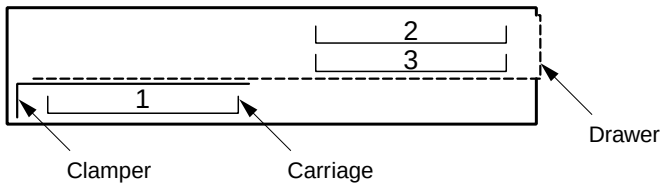
CD Drive



Brief description

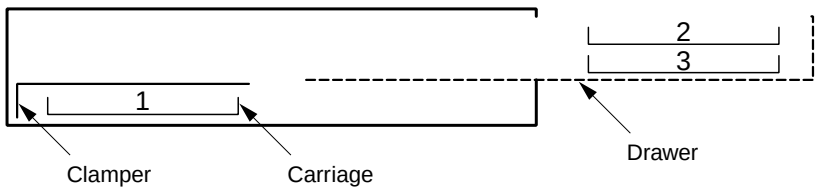
On the next pages various actions of the 3 Disc Tray Changer are described with simplified drawings.

1. Initial state. After Power on the changer is in this position.
The drawer closed
Carriage #1 is in Play position
Carriage #2 and #3 are in home position

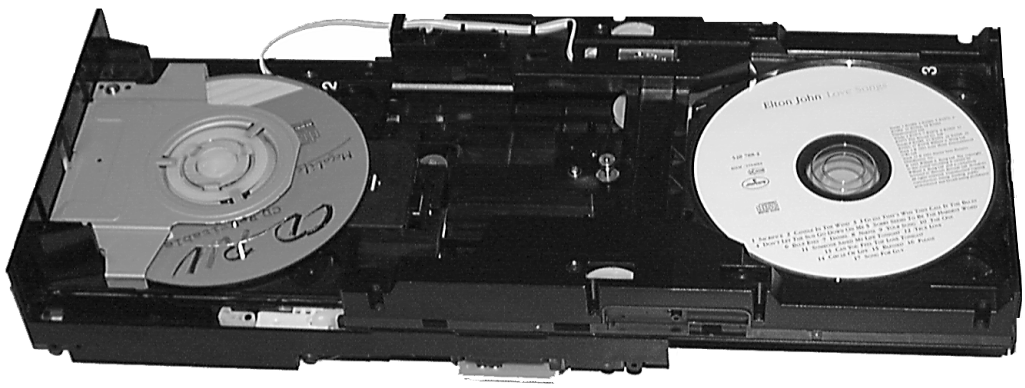


The Changer looks like

2. Tray open.
The Drawer is moved out
Carriage #2 and #3 remain in home position

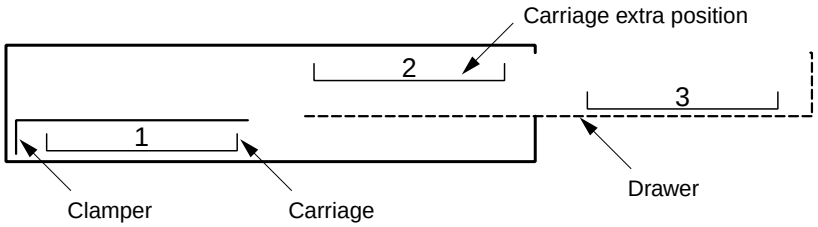


The Changer looks like

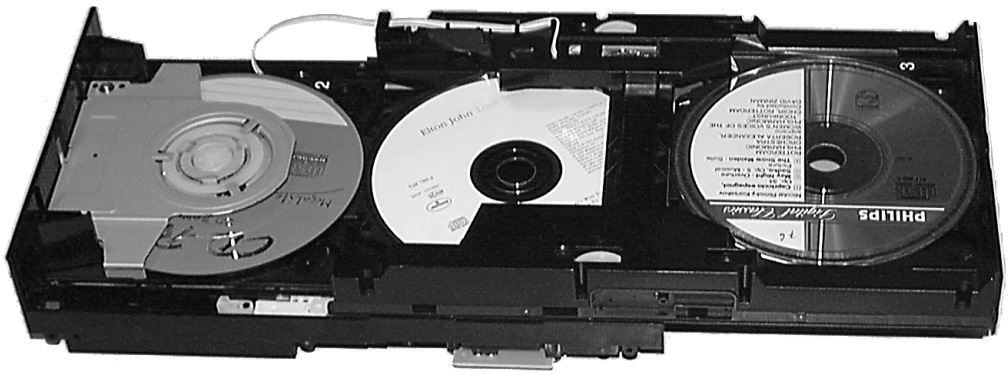


3. Carriage extra.

This position is necessary to get access to the lower carriage. It is also used during disc change.

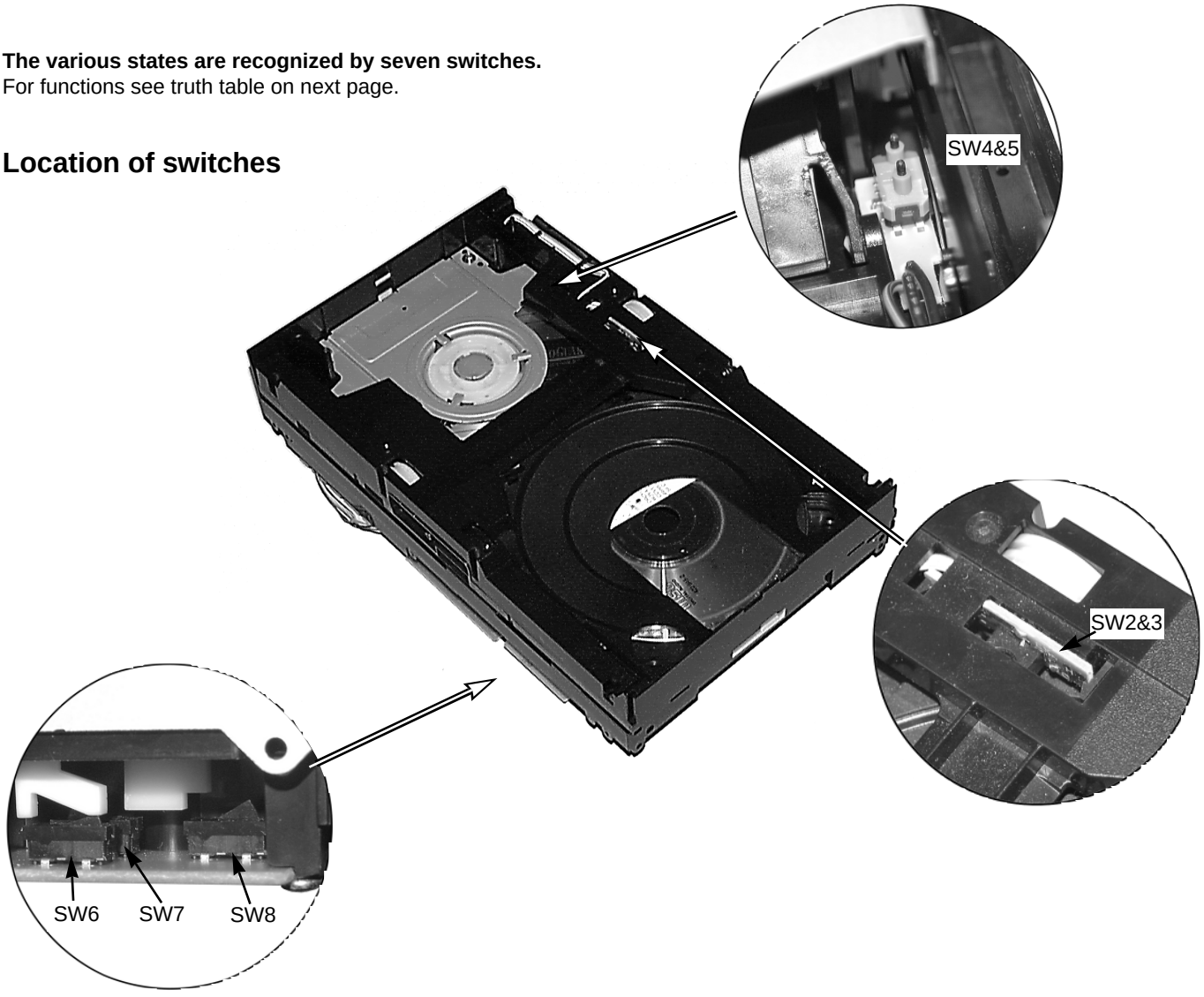


The changer looks like



The various states are recognized by seven switches.
For functions see truth table on next page.

Location of switches

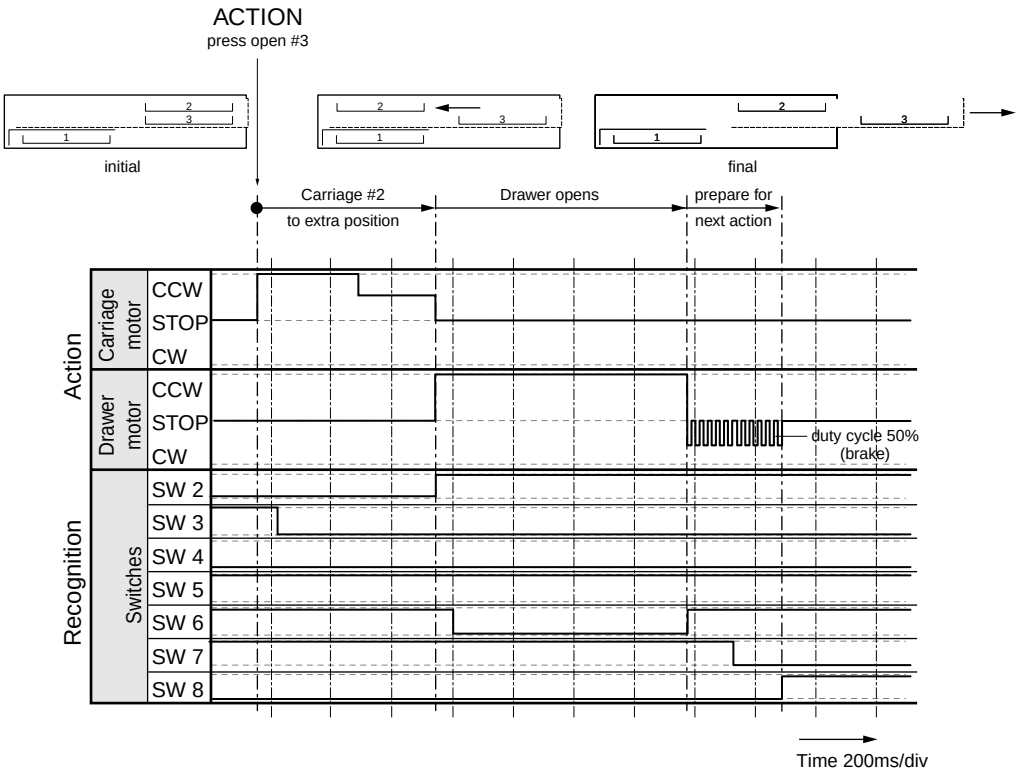


Truth Table

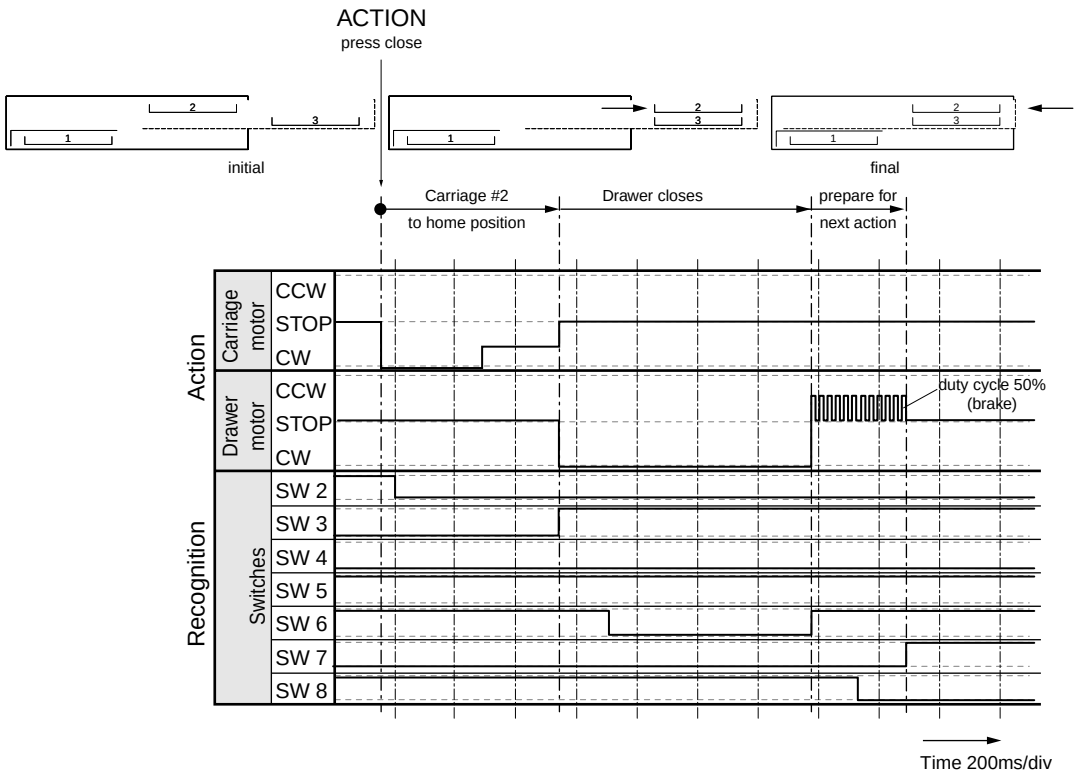
Function	Register output / Switch							
	Q0	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**
	SW 8	**SW 7**	**SW 6**	**SW 5**	**SW 4**	**SW 3**	**SW 2**	**-**
Slider reverse recognition	1	0	0	0	0	0	0	X
Slider forward recognition	0	1	0	0	0	0	0	X
Drawer closed recognition	0	0	1	0	0	0	0	X
No carriage under clamper	0	0	0	0	0	0	0	X
Carriage #1 under clamper	0	0	0	0	1	0	0	X
Carriage #2 under clamper	0	0	0	1	0	0	0	X
Carriage #3 under clamper	0	0	0	1	1	0	0	X
Carriage home recognition	0	0	0	0	0	1	0	X
Carriage extra recognition	0	0	0	0	0	0	1	X

Timing Diagrams

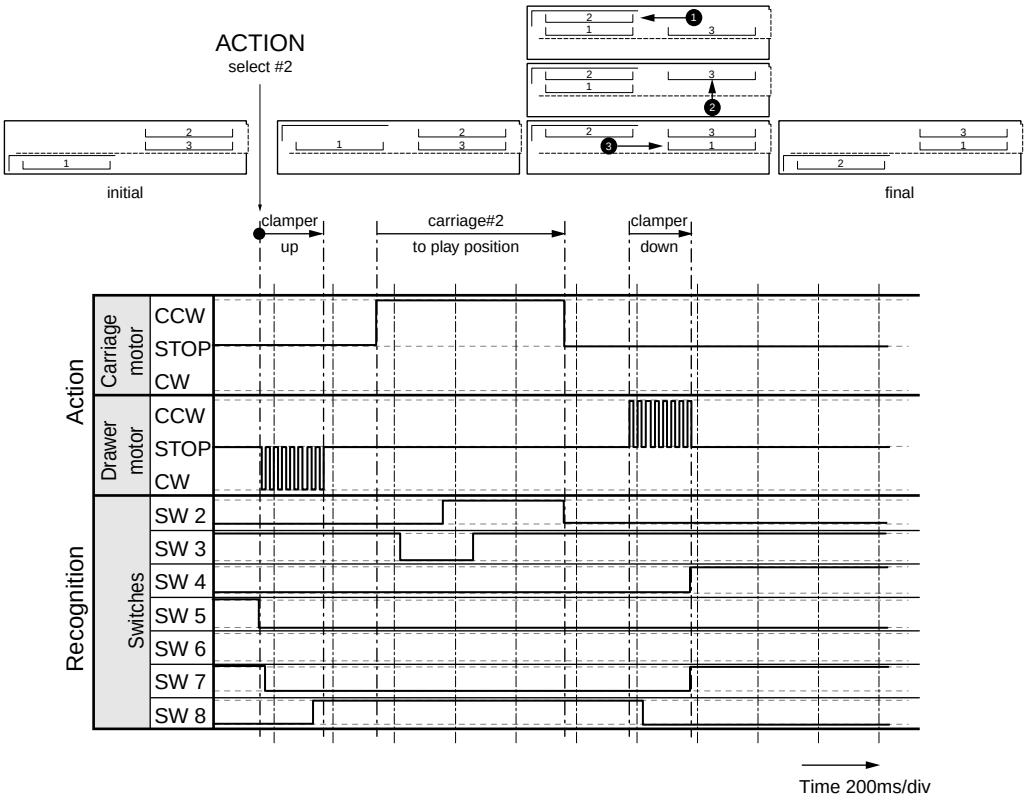
1. Open #3



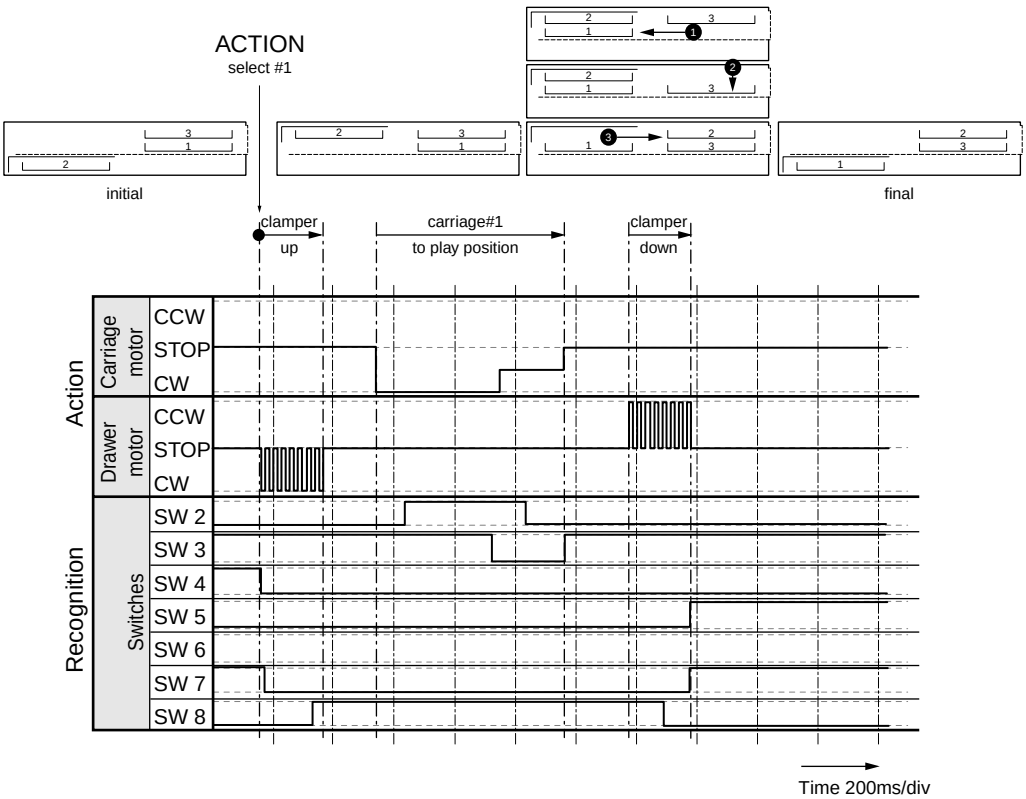
2. Close #3



3. Select #2

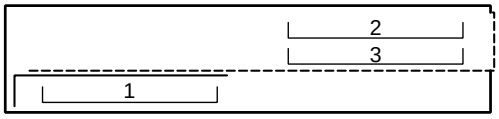


4. Select #1

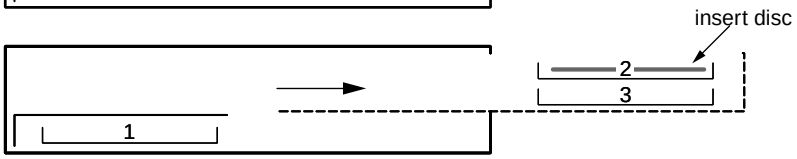


Load all discs

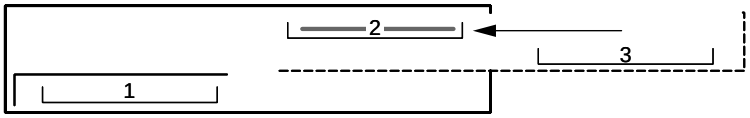
1. Power on. Initial state.



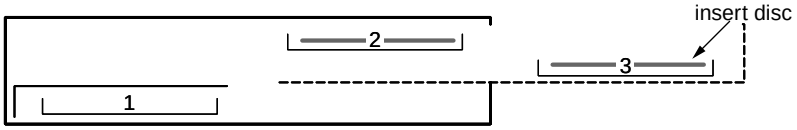
2. Press open #2.
   Tray moves out.
   Load carriage #2.



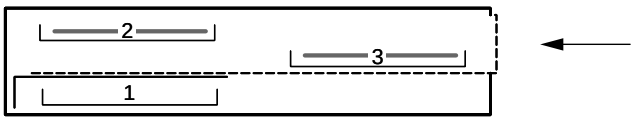
3. Press open #3.
   Carriage #2 moves in extra position.



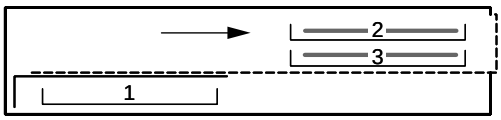
4. Load carriage #3.



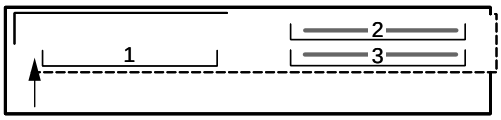
5. Press open #1.
   Tray closes.



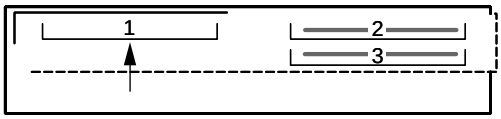
6. Carriage #2 moves in home position.



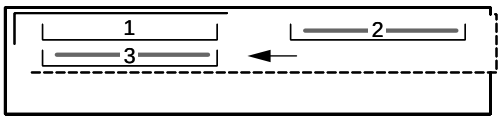
7. Clamper moves to upper position.
   Carriage #1 moves to height of carriage #3.



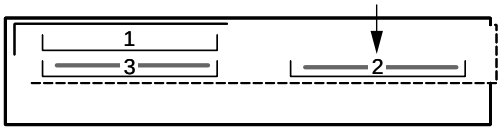
8. Carriage #1 moves to height of carriage #2.



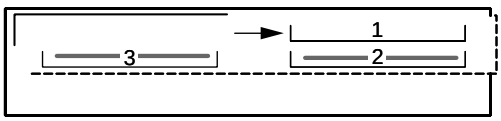
9. Carriage #3 moves below carriage #1.



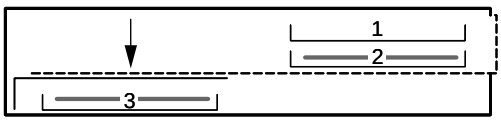
10. Carriage #2 moves down.



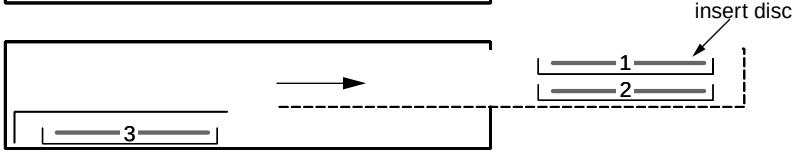
11. Carriage #1 moves in home position.



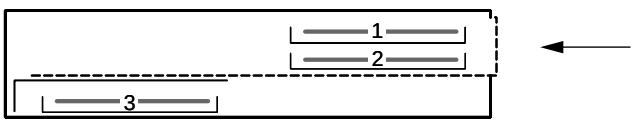
12. Carriage #3 and clamper move down (in play position).



13. Tray moves out.
    Load carriage #1.

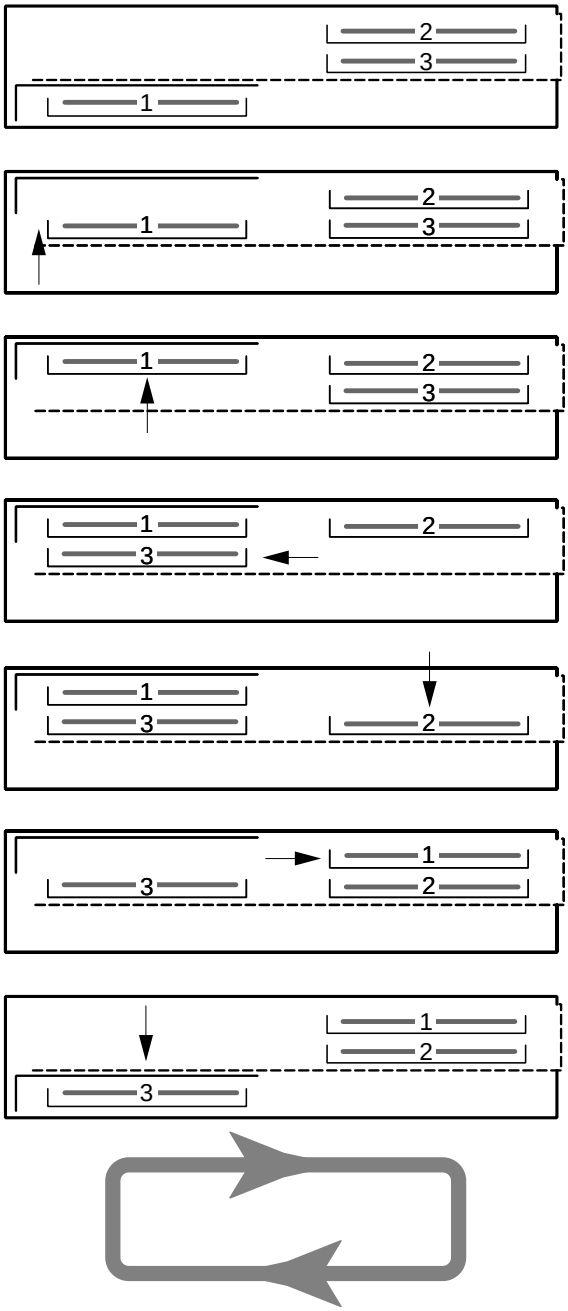


14. Press close.
    Tray closes.



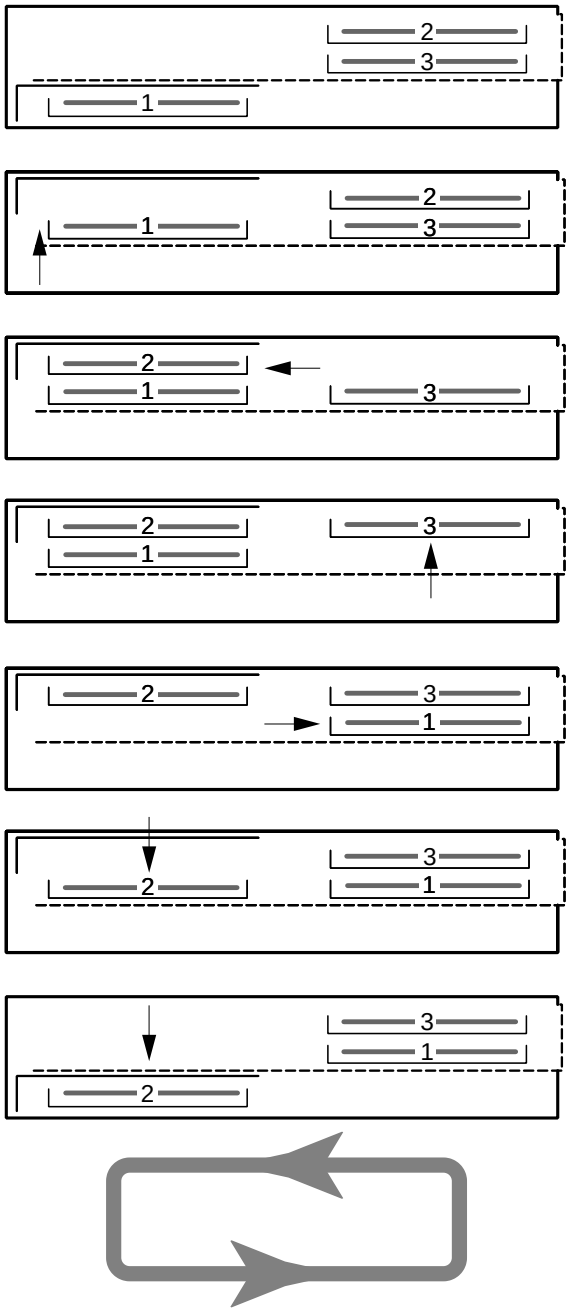
Change *'backwards'*

E.g. select #3 while playing #1.



Change *'forwards'*

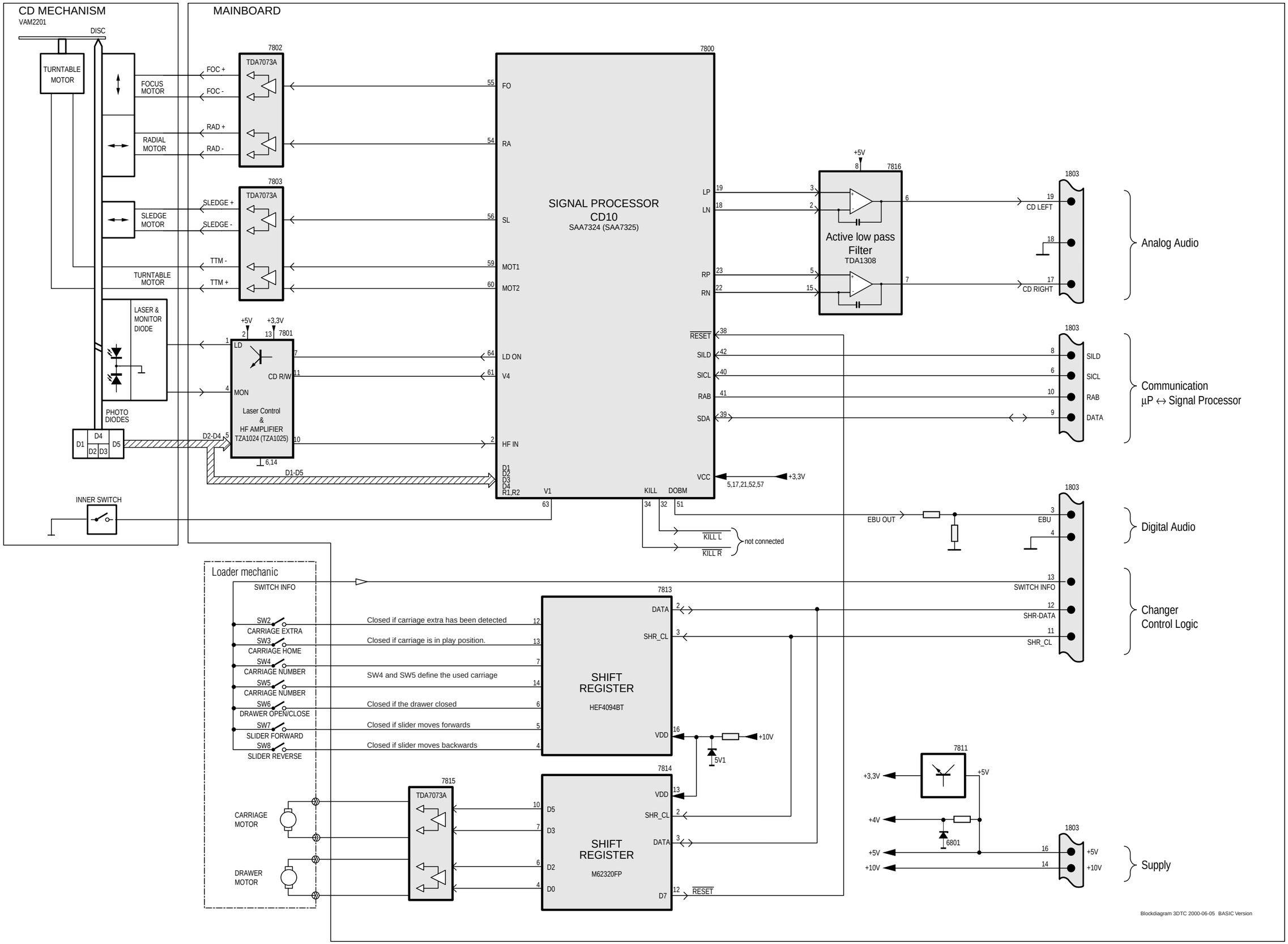
E.g. select #2 while playing #1.



See also timing diagrams (page 10-8).

10-11

BLOCK DIAGRAM 3DTC

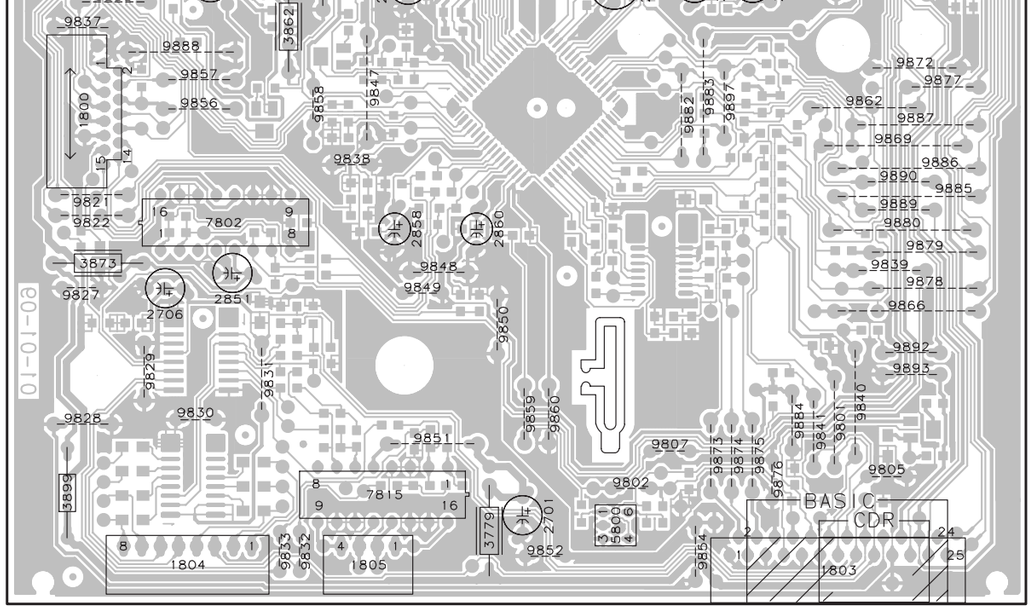


10-12

1800 D1 2706 E2 2858 E3 3779 G4 7803 A6 9808 C7 9827 E1 9836 C1 9844 B2 9854 G5 9863 C7 9873 F5 9882 D5 9890 E7
1801 A4 2818 C5 2860 E4 3862 D2 7815 G3 9809 B7 9828 F1 9837 C1 9845 C3 9855 B4 9864 C7 9874 F6 9883 D5 9892 F7
1802 C4 2830 C2 2863 A6 3873 E1 9801 F6 9821 E1 9829 F1 9838 D3 9847 D3 9856 D2 9865 C7 9875 F6 9884 F6 9893 F7
1803 G6 2839 C3 2864 A7 3887 A5 9802 G5 9822 E1 9830 F2 9839 E7 9848 E3 9857 D2 9866 E7 9876 G6 9885 E7 9894 C4
1804 G2 2843 C2 2866 C6 3888 A5 9804 A2 9823 C1 9831 F2 9840 F6 9849 E3 9858 D3 9869 D7 9877 D7 9886 D7 9895 C5
1805 G3 2845 C4 2868 C5 3899 G1 9805 G7 9824 C1 9832 G3 9841 F6 9850 F4 9859 F4 9870 B7 9878 E7 9887 D7 9896 C1
1806 C7 2847 C3 2886 B5 5800 G5 9806 C3 9825 C1 9833 G2 9842 B3 9851 F3 9860 F4 9871 B7 9879 E7 9888 D2 9897 D6
2701 G4 2851 E2 2891 B6 7802 E2 9807 F5 9826 B3 9834 B1 9843 B3 9852 G4 9862 D6 9872 D7 9880 E7 9889 E7 C800 A1

2700 B3 2814 F1 2842 E4 2867 E5 2895 E5 3725 B6 3743 C4 3759 E5 3776 A3 3794 G3 3817 F1 3845 C5 3860 D6 3877 C3 3897 G3 7804 D3
2703 B3 2815 F1 2844 D3 2869 E5 3700 F3 3726 D6 3744 A5 3760 F6 3777 A3 3795 F2 3818 F4 3846 C1 3861 E2 3878 C4 3898 F3 7806 D2
2704 B2 2816 F4 2846 C2 2878 B5 3701 F2 3727 D6 3745 C5 3761 F5 3778 B3 3796 F3 3820 F2 3847 C6 3863 E4 3879 C2 6801 B7 7811 B7
2705 F2 2817 E5 2848 C3 2879 A4 3702 E6 3728 D5 3746 C5 3762 F6 3780 B1 3797 F2 3821 F4 3848 C6 3864 E3 3880 D3 6802 C5 7812 C5
2707 F3 2819 E4 2849 D3 2880 A5 3703 E6 3729 D6 3747 C5 3763 F5 3781 B3 3805 F4 3822 D6 3849 C6 3865 C6 3881 D3 6804 A2 7813 A2
2708 F3 2820 E4 2850 E3 2881 A5 3713 F3 3730 F2 3748 C5 3764 E6 3782 B3 3806 F4 3823 D6 3850 D6 3866 D4 3882 D3 6805 A2 7814 B2
2709 F2 2821 F2 2852 C4 2882 B5 3715 C6 3731 G2 3750 C5 3765 E5 3783 A7 3807 F1 3829 D2 3851 F1 3867 E3 3883 C3 6806 A2 7816 E5
2710 F3 2822 F4 2853 D3 2885 F6 3716 C6 3733 B7 3751 C5 3766 F3 3784 B2 3808 F4 3830 E2 3852 D6 3868 E3 3884 G7 6807 B1 7818 F3
2711 F2 2828 F2 2854 D3 2887 F6 3717 D6 3735 B7 3752 C4 3768 F3 3786 B1 3809 F1 3831 F2 3853 F2 3869 C3 3885 C3 6808 A1 7819 G2
2712 B3 2829 F3 2855 C2 2888 F5 3718 B6 3736 C6 3753 A6 3770 G3 3787 B3 3810 F4 3833 F4 3854 B6 3870 C4 3886 C4 6809 A1 7820 G3
2713 F3 2831 D5 2856 C3 2889 E6 3719 E5 3737 B5 3754 B6 3771 B3 3788 B2 3811 D2 3835 F2 3855 F2 3871 C2 3889 C3 6810 A1
2810 E4 2832 E2 2859 D3 2890 E5 3720 E5 3738 C5 3755 F6 3772 B2 3789 B2 3812 D2 3836 F1 3856 F2 3872 C4 3890 G6 6811 C2
2811 F1 2833 D5 2861 G7 2892 E5 3722 F2 3740 C5 3756 F6 3773 A4 3790 B3 3813 F4 3840 D6 3857 D6 3874 D3 3891 C3 6812 C1
2812 F4 2834 D1 2862 C3 2893 E7 3723 A6 3741 C5 3757 F6 3774 B3 3791 B3 3814 E5 3841 C4 3858 D6 3875 E3 3892 F7 7800 D4
2813 E4 2836 E2 2865 C3 2894 E5 3724 A6 3742 C5 3758 E5 3775 B3 3793 G3 3816 E5 3844 C5 3859 E2 3876 C3 3893 E3 7801 E2

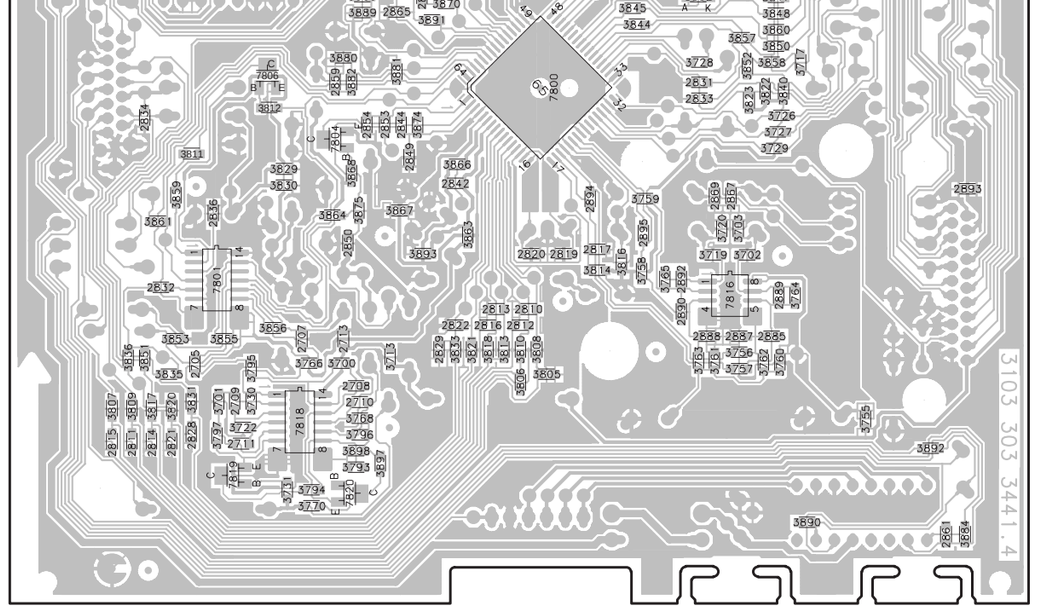
Mainboard Componentside view



This assembly drawing shows a summary of all possible versions.
For components used in a specific version see schematic diagram respectively partslist.

3DTC, Mainboard Layout stage .4 2001-02-07

Mainboard Copperside view

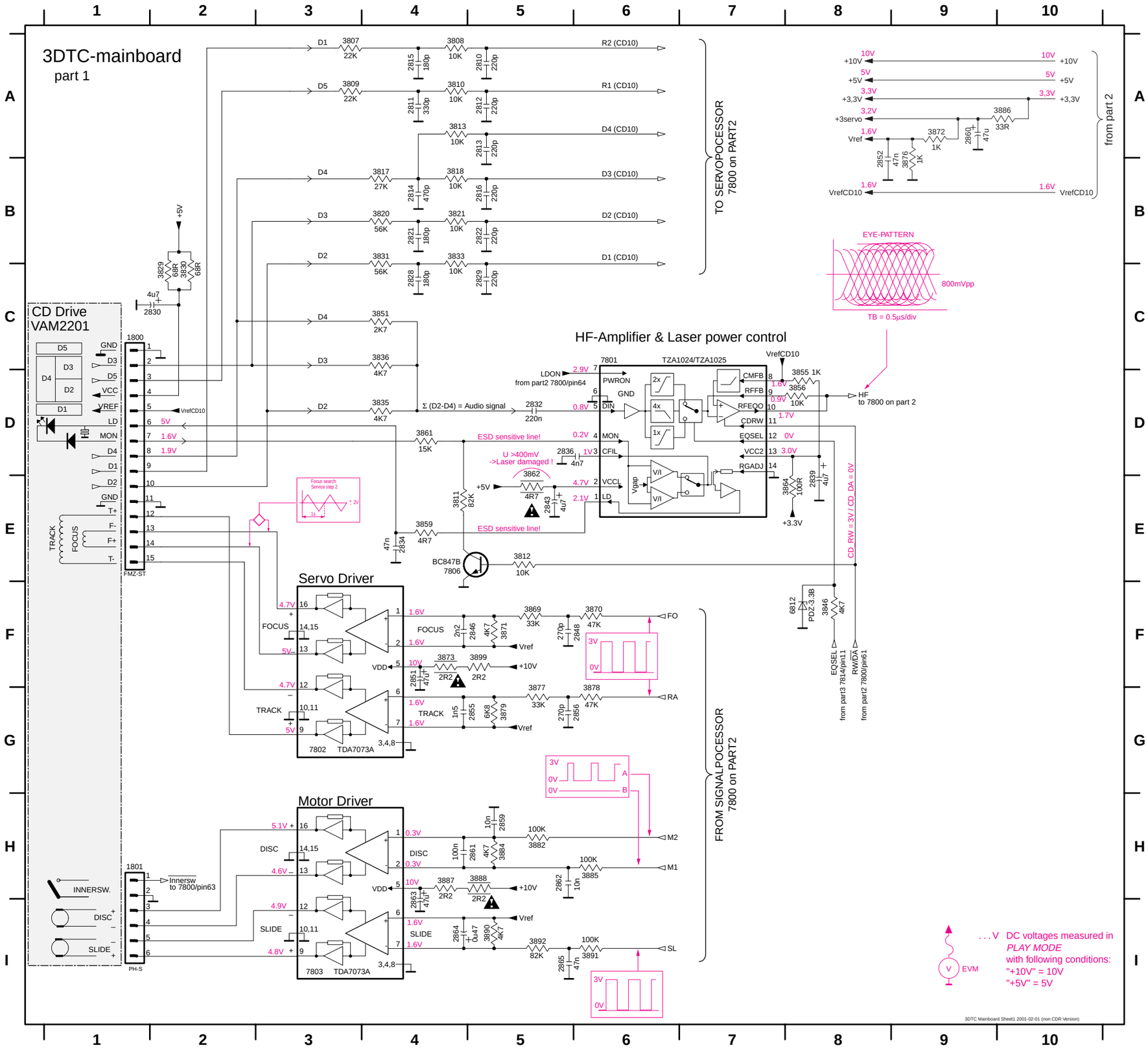


This assembly drawing shows a summary of all possible versions.
For components used in a specific version see schematic diagram respectively partslist.

3DTC, Mainboard Layout stage .4 2001-02-07

10-13

1800	C1	2813	A5	2822	B5	2834	E4	2848	F5	2859	H5	2864	I4	3810	A4	3821	B4	3835	D4	3856	D8	3869	F5	3876	B9	3884	H5	3890	I5	7801	D6
1801	I1	2814	B4	2828	C4	2836	D6	2851	F4	2860	B9	2865	I5	3813	A4	3829	C2	3836	C4	3859	E4	3870	F6	3877	G5	3885	H6	3891	I6	7802	G3
2810	A5	2815	A4	2829	C5	2839	E8	2852	B8	2861	H4	3807	A3	3817	B4	3830	C2	3846	F8	3861	D4	3871	F5	3878	G6	3886	A10	3892	I5	7803	I3
2811	A4	2816	B5	2830	C2	2843	E5	2855	G4	2862	H5	3808	A4	3818	B4	3831	B4	3851	C4	3862	E5	3872	B9	3879	G5	3887	H4	3899	F5		
2812	A4	2821	B4	2832	D5	2846	F4	2856	G5	2863	H4	3809	A3	3820	B4	3833	B4	3855	D8	3864	E8	3873	F4	3882	H5	3888	H5	6812	F8		

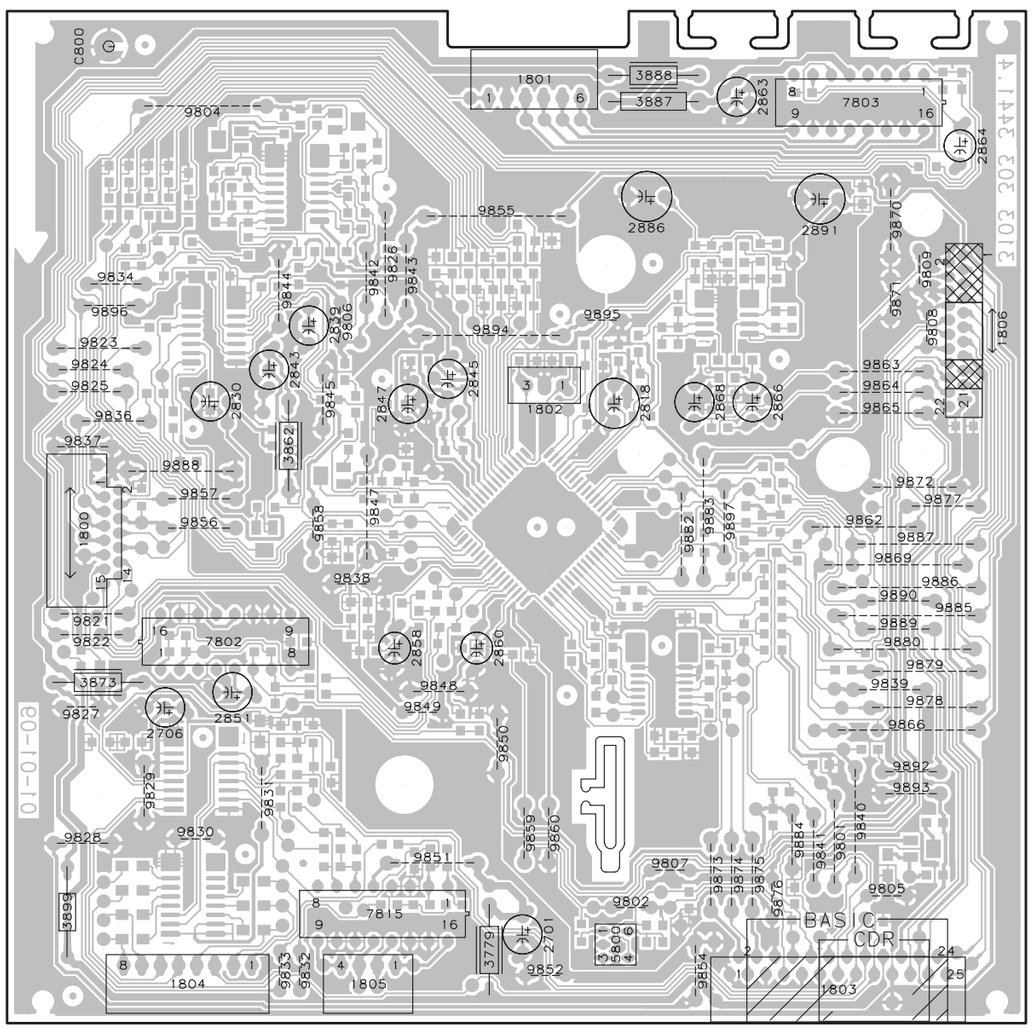


10-14

1800 D1 2706 E2 2858 E3 3779 G4 7803 A6 9808 C7 9827 E1 9836 C1 9844 B2 9854 G5 9863 C7 9873 F5 9882 D5 9890 E7
1801 A4 2818 C5 2860 E4 3862 D2 7815 G3 9809 B7 9828 F1 9837 C1 9845 C3 9855 B4 9864 C7 9874 F6 9883 D5 9892 F7
1802 C4 2830 C2 2863 A6 3873 E1 9801 F6 9821 E1 9829 F1 9838 D3 9847 D3 9856 D2 9865 C7 9875 F6 9884 F6 9893 F7
1803 G6 2839 C3 2864 A7 3887 A5 9802 G5 9822 E1 9830 F2 9839 E7 9848 E3 9857 D2 9866 E7 9876 G6 9885 E7 9894 C4
1804 G2 2843 C2 2866 C6 3888 A5 9804 A2 9823 C1 9831 F2 9840 F6 9849 E3 9858 D3 9869 D7 9877 D7 9886 D7 9895 C5
1805 G3 2845 C4 2868 C5 3899 G1 9805 G7 9824 C1 9832 G3 9841 F6 9850 F4 9859 F4 9870 B7 9878 E7 9887 D7 9896 C1
1806 C7 2847 C3 2886 B5 5800 G5 9806 C3 9825 C1 9833 G2 9842 B3 9851 F3 9860 F4 9871 B7 9879 E7 9888 D2 9897 D6
2701 G4 2851 E2 2891 B6 7802 E2 9807 F5 9826 B3 9834 B1 9843 B3 9852 G4 9862 D6 9872 D7 9880 E7 9889 E7 C800 A1

2700 B3 2814 F1 2842 E4 2867 E5 2895 E5 3725 B6 3743 C4 3759 E5 3776 A3 3794 G3 3817 F1 3845 C5 3860 D6 3877 C3 3897 G3 7804 D3
2703 B3 2815 F1 2844 D3 2869 E5 3700 F3 3726 D6 3744 A5 3760 F6 3777 A3 3795 F2 3818 F4 3846 C1 3861 E2 3878 C4 3898 F3 7806 D2
2704 B2 2816 F4 2846 C2 2878 B5 3701 F2 3727 D6 3745 C5 3761 F5 3778 B3 3796 F3 3820 F2 3847 C6 3863 E4 3879 C2 6801 B7 7811 B7
2705 F2 2817 E5 2848 C3 2879 A4 3702 E6 3728 D5 3746 C5 3762 F6 3780 B1 3797 F2 3821 F4 3848 C6 3864 E3 3880 D3 6802 C5 7812 C5
2707 F3 2819 E4 2849 D3 2880 A5 3703 E6 3729 D6 3747 C5 3763 F5 3781 B3 3805 F4 3822 D6 3849 C6 3865 C6 3881 D3 6804 A2 7813 A2
2708 F3 2820 E4 2850 E3 2881 A5 3713 F3 3730 F2 3748 C5 3764 E6 3782 B3 3806 F4 3823 D6 3850 D6 3866 D4 3882 D3 6805 A2 7814 B2
2709 F2 2821 F2 2852 C4 2882 B5 3715 C6 3731 G2 3750 C5 3765 E5 3783 A7 3807 F1 3829 D2 3851 F1 3867 E3 3883 C3 6806 A2 7816 E5
2710 F3 2822 F4 2853 D3 2885 F6 3716 C6 3733 B7 3751 C5 3766 F3 3784 B2 3808 F4 3830 E2 3852 D6 3868 E3 3884 G7 6807 B1 7818 F3
2711 F2 2828 F2 2854 D3 2887 F6 3717 D6 3735 B7 3752 C4 3768 F3 3786 B1 3809 F1 3831 F2 3853 F2 3869 C3 3885 C3 6808 A1 7819 G2
2712 B3 2829 F3 2855 C2 2888 F5 3718 B6 3736 C6 3753 A6 3770 G3 3787 B3 3810 F4 3833 F4 3854 B6 3870 C4 3886 C4 6809 A1 7820 G3
2713 F3 2831 D5 2856 C3 2889 E6 3719 E5 3737 B5 3754 B6 3771 B3 3788 B2 3811 D2 3835 F2 3855 F2 3871 C2 3889 C3 6810 A1
2810 E4 2832 E2 2859 D3 2890 E5 3720 E5 3738 C5 3755 F6 3772 B2 3789 B2 3812 D2 3836 F1 3856 F2 3872 C4 3890 G6 6811 C2
2811 F1 2833 D5 2861 G7 2892 E5 3722 F2 3740 C5 3756 F6 3773 A4 3790 B3 3813 F4 3840 D6 3857 D6 3874 D3 3891 C3 6812 C1
2812 F4 2834 D1 2862 C3 2893 E7 3723 A6 3741 C5 3757 F6 3774 B3 3791 B3 3814 E5 3841 C4 3858 D6 3875 E3 3892 F7 7800 D4
2813 E4 2836 E2 2865 C3 2894 E5 3724 A6 3742 C5 3758 E5 3775 B3 3793 G3 3816 E5 3844 C5 3859 E2 3876 C3 3893 E3 7801 E2

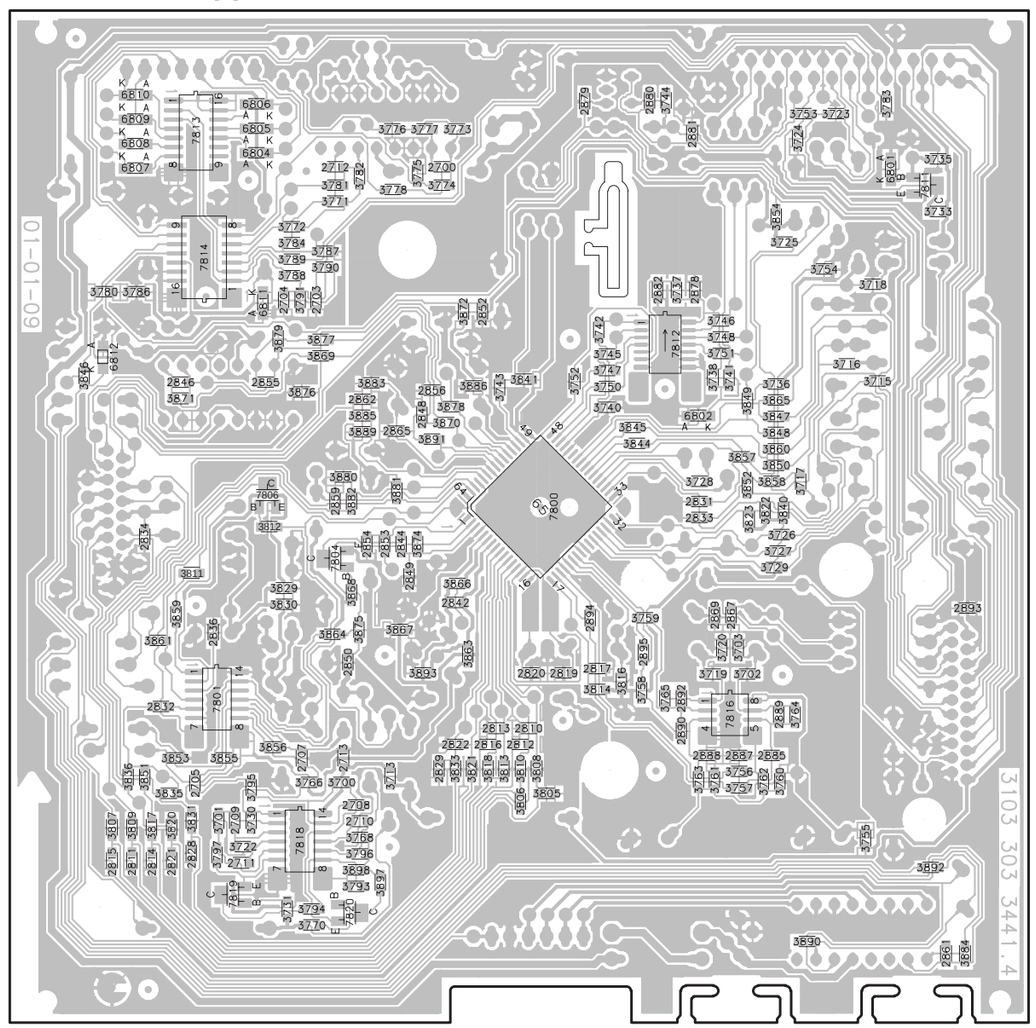
Mainboard Componentside view



This assembly drawing shows a summary of all possible versions.
For components used in a specific version see schematic diagram respectively partslist.

3DTC, Mainboard Layout stage .4 2001-02-07

Mainboard Copperside view

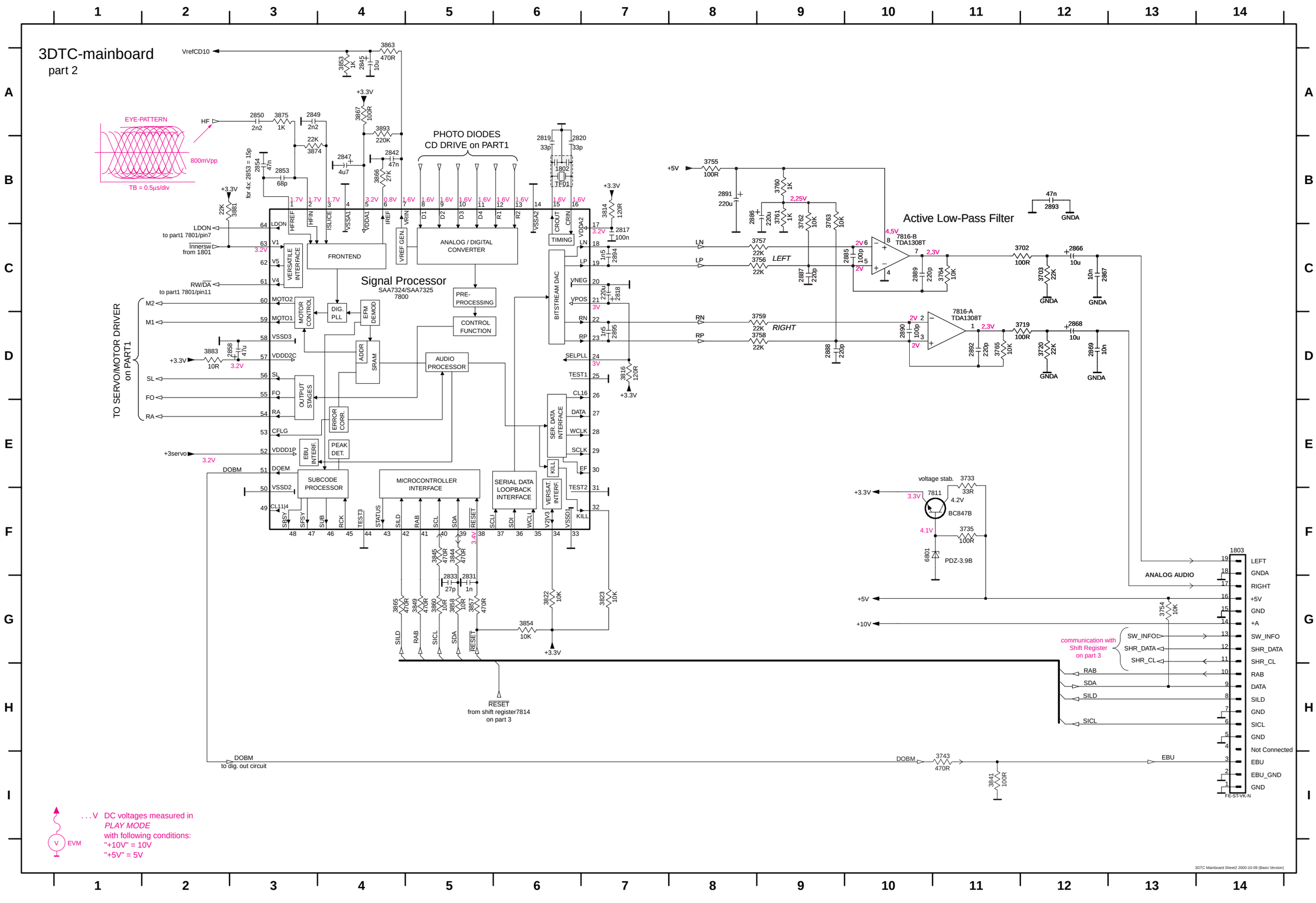


This assembly drawing shows a summary of all possible versions.
For components used in a specific version see schematic diagram respectively partslist.

3DTC, Mainboard Layout stage .4 2001-02-07

10-15

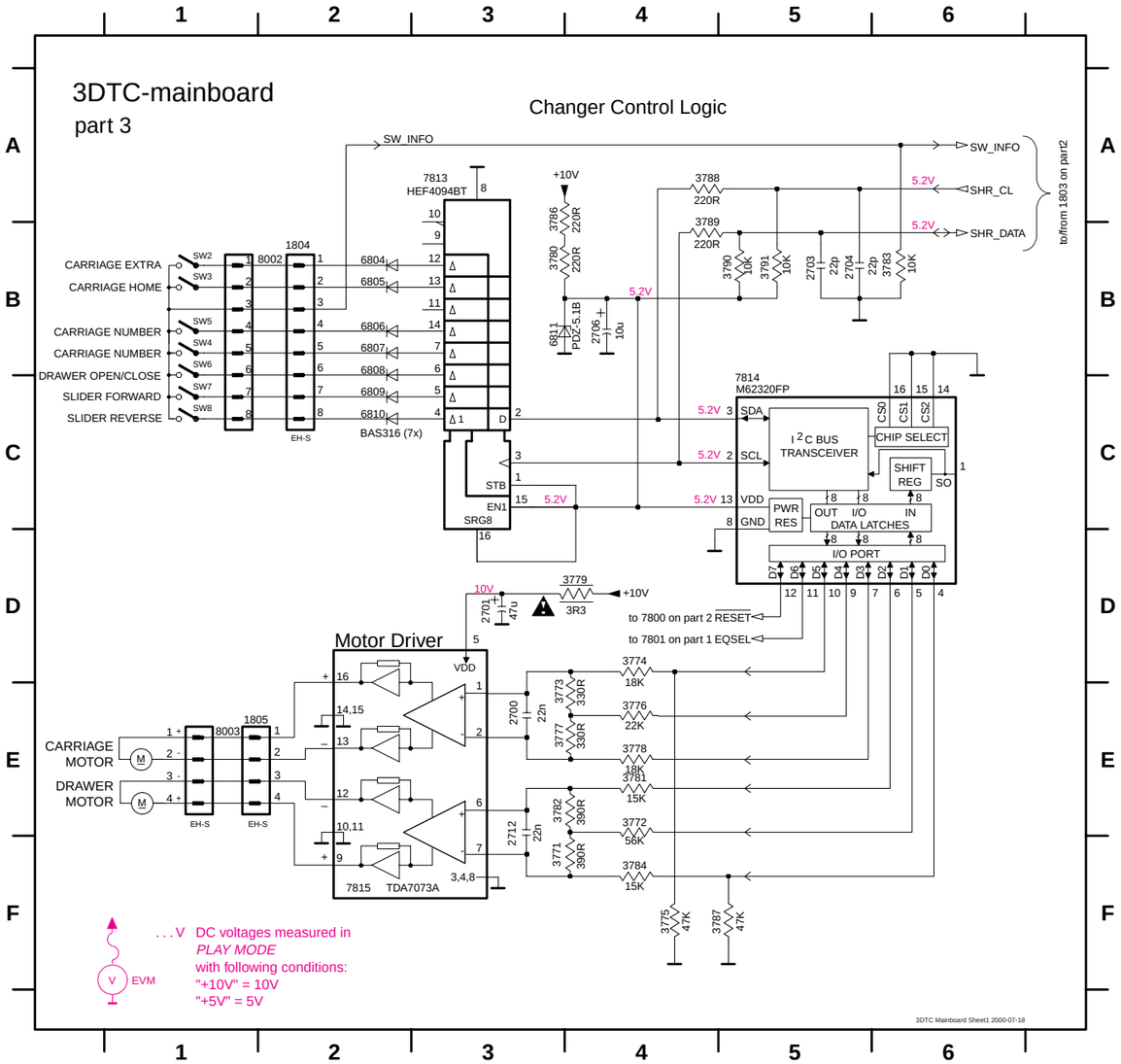
1802	B6	2819	B6	2842	B4	2850	A3	2866	C12	2885	C10	2889	C10	2893	B12	3703	C12	3735	F11	3756	C9	3760	B9	3764	C11	3822	G6	3845	F5	3857	G5	3865	G4	3875	A3	6801	F10	7816-B C10
1803	F14	2820	B6	2845	A4	2853	B3	2867	C12	2886	B9	2890	D10	2894	C7	3719	D12	3743	I11	3757	C9	3761	B9	3765	D11	3823	G7	3849	G5	3858	G5	3866	B4	3881	B3	7800	C4	
2817	C7	2831	G5	2847	B4	2854	B3	2868	D12	2887	C9	2891	B8	2895	D7	3720	D12	3754	G13	3758	D9	3762	B9	3814	B7	3841	I11	3853	A4	3860	G5	3867	A4	3883	D2	7811	F10	
2818	C7	2833	G5	2849	A3	2858	D3	2869	D12	2888	D9	2892	D11	3702	C12	3733	F11	3755	B8	3759	D9	3763	B9	3816	D7	3844	F5	3854	G6	3863	A4	3874	B3	3893	A4	7816-A	D11	



Technical remarks

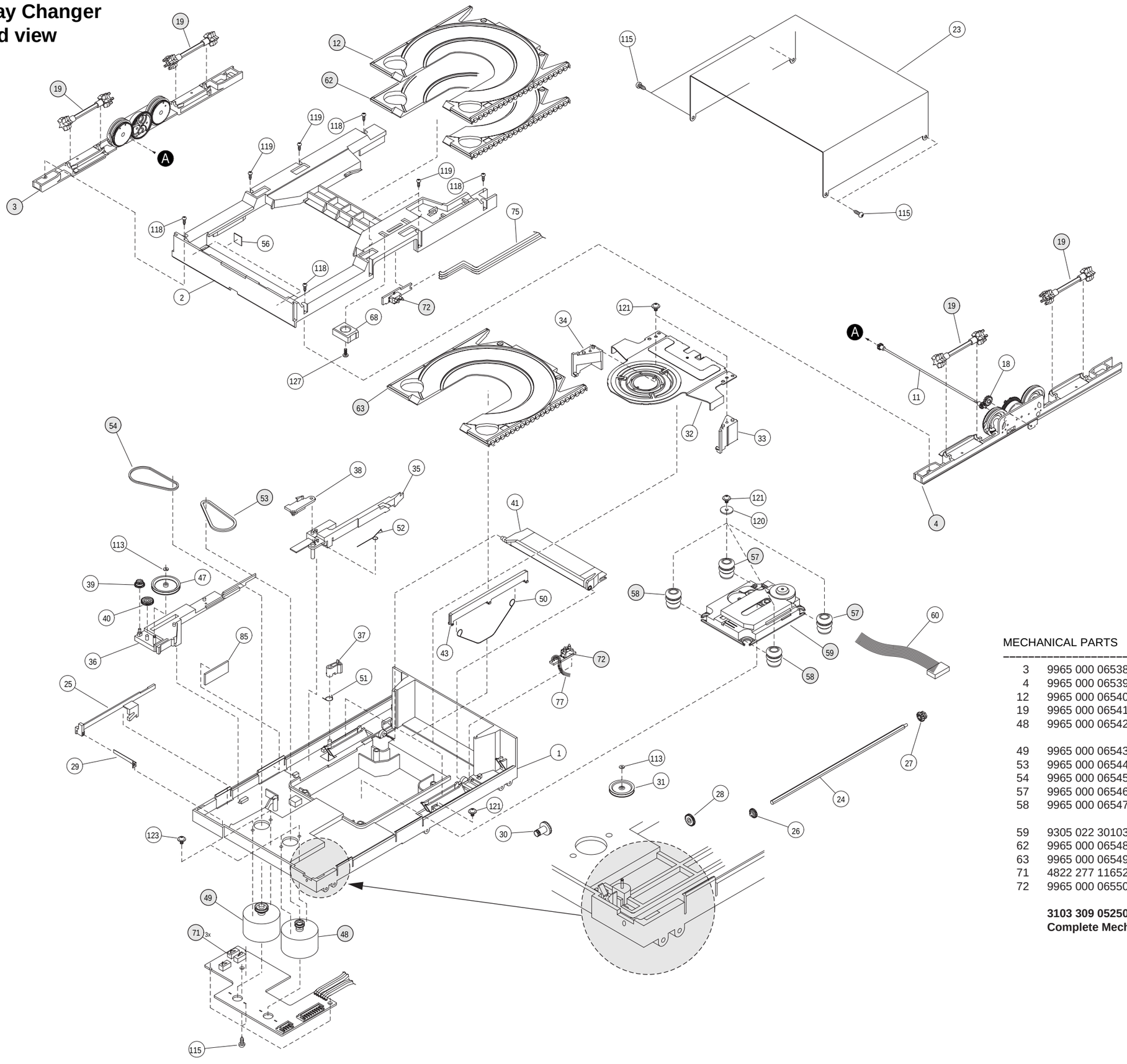
10-16

1804	B2	2703	B5	3771	F4	3775	F4	3779	D4	3783	B6	3788	A4	6804	B2	6808	B2	7813	A3
1805	E1	2704	B5	3772	E4	3776	E4	3780	B3	3784	F4	3789	B4	6805	B2	6809	C2	7814	C5
2700	E3	2706	B4	3773	E4	3777	E4	3781	E4	3786	B3	3790	B5	6806	B2	6810	C2	7815	F2
2701	D3	2712	E3	3774	D4	3778	E4	3782	E4	3787	F5	3791	B5	6807	B2	6811	B3		



10-17

3Disc Tray Changer
Exploded view



MECHANICAL PARTS

3	9965 000 06538	ASSY HOLDER LEFT
4	9965 000 06539	ASSY HOLDER RIGHT
12	9965 000 06540	ASSY CARRIAGE 1 (TOP)
19	9965 000 06541	ASSY GEAR STAR
48	9965 000 06542	ASSY MOTOR CARRIAGE
49	9965 000 06543	ASSY MOTOR DRAWER
53	9965 000 06544	BELT DRAWER
54	9965 000 06545	BELT CARRIAGE
57	9965 000 06546	DAMPER RUBBER REAR
58	9965 000 06547	DAMPER RUBBER FRONT
59	9305 022 30103	CD DRIVE VAM2201/03
62	9965 000 06548	ASSY CARRIAGE 2 (MIDDLE)
63	9965 000 06549	ASSY CARRIAGE 3 (BOTTOM)
71	4822 277 11652	SWITCH (SW6-SW8)
72	9965 000 06550	SWITCH (SW2-SW5)

3103 309 05250 3DTC CMCJ-01-13 (1xSPEED)
Complete Mechanic - CD Drive already included

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ELECTRICAL PARTSLIST 3DTC MODULE Basic Version

MISCELLANEOUS

1800	4822 265 10925	FLEX FOIL CONNECTOR 15PIN	
1803	4822 265 11545	FLEX FOIL CONNECTOR 19PIN	
8003	3103 308 92560	FLEX FOIL CABLE 15P, 80mm	
59	9305 022 30103	CD DRIVE VAM2201/03	

CAPACITORS

2504	4822 124 40248	10µF	20%	63V	
2506	4822 124 40433	47µF	20%	25V	
2507	4822 124 40248	10µF	20%	63V	
2508	4822 124 40248	10µF	20%	63V	
2510	4822 124 40248	10µF	20%	63V	
2513	4822 124 40248	10µF	20%	63V	
2530	4822 124 40433	47µF	20%	25V	
2532	4822 124 40433	47µF	20%	25V	
2700 ©	4822 126 14494	22nF	10%	25V	
2701	4822 124 40433	47µF	20%	25V	
2703 ©	5322 122 32658	22pF	5%	50V	
2704 ©	4822 122 33761	22pF	5%	50V	
2706	4822 124 22833	10µF	20%	50V	
2712 ©	4822 126 14494	22nF	10%	25V	
2810 ©	4822 126 13883	220pF	5%	50V	
2811 ©	4822 126 14241	330pF		50V	
2812 ©	4822 126 13883	220pF	5%	50V	
2813 ©	4822 126 13883	220pF	5%	50V	
2814 ©	4822 126 13881	470pF	5%	50V	
2815 ©	4822 126 14508	180pF	5%	50V	
2816 ©	4822 126 13883	220pF	5%	50V	
2817 ©	4822 126 14585	100nF	10%	50V	
2818	4822 124 42383	220µF	20%	4V	
2819 ©	5322 122 32659	33pF	5%	50V	
2820 ©	5322 122 32659	33pF	5%	50V	
2821 ©	4822 126 14508	180pF	5%	50V	
2822 ©	4822 126 13883	220pF	5%	50V	
2828 ©	4822 126 14508	180pF	5%	50V	
2829 ©	4822 126 13883	220pF	5%	50V	
2830	4822 124 40769	4,7µF	20%	100V	
2831 ©	5322 126 11578	1nF	10%	63V	
2832 ©	4822 126 13879	220nF	20%	16V	
2833 ©	4822 126 11669	27pF	10%	50V	
2834 ©	4822 126 13751	47nF	10%	50V	
2836 ©	4822 126 13193	4,7nF	10%	63V	
2839	4822 124 40769	4,7µF	20%	100V	
2842 ©	4822 126 13751	47nF	10%	50V	
2843	4822 124 40769	4,7µF	20%	100V	
2845	4822 124 40248	10µF	20%	63V	
2846 ©	4822 126 14238	2,2nF	10%	50V	
2847	4822 124 40769	4,7µF	20%	100V	
2848 ©	4822 126 14506	270pF	5%	50V	
2849 ©	4822 122 33177	10nF	20%	50V	
2850 ©	2238 786 11554	2,2nF	5%	16V	
2851	4822 124 40433	47µF	20%	25V	
2852 ©	3198 024 44730	47nF	5%	50V	
2853 ©	4822 126 13694	68pF	1%	63V	
2854 ©	4822 126 13751	47nF	10%	50V	
2855 ©	4822 126 14247	1,5nF	10%	50V	
2856 ©	4822 122 33216	270pF	5%	50V	
2858	4822 124 12362	47µF	20%	4V	
2859 ©	4822 122 33177	10nF	20%	50V	
2860	4822 124 12362	47µF	20%	4V	
2861 ©	4822 126 14585	100nF	10%	50V	
2862 ©	5322 126 11583	10nF	10%	63V	
2863	4822 124 40433	47µF	20%	25V	
2864	5322 124 41948	0,47µF	20%	50V	

CAPACITORS

2865 ©	3198 024 44730	47nF	5%	50V	
2866	3198 028 41090	10µF	20%	35V	
2867 ©	4822 122 33177	10nF	20%	50V	
2868	3198 028 41090	10µF	20%	35V	
2869 ©	4822 122 33177	10nF	20%	50V	
2885 ©	4822 122 31765	100pF	5%	50V	
2886	4822 124 42383	220µF	20%	4V	
2887 ©	4822 126 13883	220pF	5%	50V	
2888 ©	4822 126 13883	220pF	5%	50V	
2889 ©	4822 126 13883	220pF	5%	50V	
2890 ©	4822 122 31765	100pF	5%	50V	
2891	4822 124 42383	220µF	20%	4V	
2892 ©	4822 126 13883	220pF	5%	50V	
2893 ©	4822 126 13751	47nF	10%	50V	
2894 ©	4822 126 13344	1,5nF	5%	63V	
2895 ©	4822 126 13344	1,5nF	5%	63V	

RESISTORS

3502 ©	4822 051 20102	1kΩ	5%	0,1W
3505 ©	4822 051 20223	22kΩ	5%	0,1W
3512 ©	4822 117 10833	10kΩ	1%	0,1W
3515 ©	4822 117 10833	10kΩ	1%	0,1W
3517 ©	4822 117 10833	10kΩ	1%	0,1W
3534 ©	4822 117 12955	2,7kΩ	1%	0,1W
3535 ©	4822 051 20472	4,7kΩ	5%	0,1W
3536 ©	4822 117 12955	2,7kΩ	1%	0,1W
3537 ©	4822 051 20472	4,7kΩ	5%	0,1W
3702 ©	4822 051 30101	100Ω	5%	0,06W
3703 ©	4822 051 30223	22kΩ	5%	0,06W
3719 ©	4822 051 30101	100Ω	5%	0,06W
3720 ©	4822 051 30223	22kΩ	5%	0,06W
3733 ©	4822 051 30339	33Ω	5%	0,06W
3735 ©	4822 051 30101	100Ω	5%	0,06W
3743 ©	4822 051 30471	470Ω	5%	0,06W
3754 ©	4822 051 30103	10kΩ	5%	0,06W
3755 ©	4822 051 30101	100Ω	5%	0,06W
3756 ©	4822 051 30223	22kΩ	5%	0,06W
3757 ©	4822 051 30223	22kΩ	5%	0,06W
3758 ©	4822 051 30223	22kΩ	5%	0,06W
3759 ©	4822 051 20223	22kΩ	5%	0,1W
3760 ©	4822 051 10102	1kΩ	2%	0,25W
3761 ©	4822 051 10102	1kΩ	2%	0,25W
3762 ©	4822 117 10833	10kΩ	1%	0,1W
3763 ©	4822 117 10833	10kΩ	1%	0,1W
3764 ©	4822 051 30103	10kΩ	5%	0,06W
3765 ©	4822 051 30103	10kΩ	5%	0,06W
3771 ©	4822 051 30391	390Ω	5%	0,062W
3772 ©	4822 051 30563	56kΩ	5%	0,06W
3773 ©	4822 051 30331	330Ω	5%	0,06W
3774 ©	4822 051 30183	18kΩ	5%	0,06W
3775 ©	4822 117 12925	47kΩ	1%	0,06W
3776 ©	4822 051 30223	22kΩ	5%	0,06W
3777 ©	4822 051 30331	330Ω	5%	0,06W
3778 ©	4822 051 30183	18kΩ	5%	0,06W
3779 ⚠	4822 052 10338	3,3Ω		NFR25
3780 ©	4822 117 11503	220Ω	5%	0,1W
3781 ©	4822 051 30153	15kΩ	5%	0,06W
3782 ©	4822 051 30391	390Ω	5%	0,062W
3783 ©	4822 051 30103	10kΩ	5%	0,06W
3784 ©	4822 051 30153	15kΩ	5%	0,06W
3786 ©	4822 051 30221	220Ω	5%	0,06W
3787 ©	4822 117 10834	47kΩ	1%	0,1W
3788 ©	4822 051 30221	220Ω	5%	0,06W

RESISTORS

3789 ©	4822 051 30221	220Ω	5%	0,06W
3790 ©	4822 051 30103	10kΩ	5%	0,06W
3791 ©	4822 051 30103	10kΩ	5%	0,06W
3805	4822 111 50499	3,3MΩ	5%	0,2W
3806	4822 111 50499	3,3MΩ	5%	0,2W
3807 ©	4822 051 30223	22kΩ	5%	0,06W
3808 ©	4822 051 30103	10kΩ	5%	0,06W
3809 ©	4822 051 30223	22kΩ	5%	0,06W
3810 ©	4822 051 30103	10kΩ	5%	0,06W
3813 ©	4822 051 30103	10kΩ	5%	0,06W
3814 ©	4822 051 20121	120Ω	5%	0,1W
3816 ©	4822 051 30121	120Ω	5%	0,06W
3817 ©	4822 051 20273	27kΩ	5%	0,1W
3818 ©	4822 051 30103	10kΩ	5%	0,06W
3820 ©	4822 117 11148	56kΩ	1%	0,1W
3821 ©	4822 051 30103	10kΩ	5%	0,06W
3822 ©	4822 051 30103	10kΩ	5%	0,06W
3823 ©	4822 051 30103	10kΩ	5%	0,06W
3829 ©	4822 051 30689	68Ω	5%	0,06W
3830 ©	4822 051 30689	68Ω	5%	0,06W
3831 ©	4822 051 30563	56kΩ	5%	0,06W
3833 ©	4822 051 30103	10kΩ	5%	0,06W
3835 ©	4822 051 30472	4,7kΩ	5%	0,06W
3836 ©	4822 051 20472	4,7kΩ	5%	0,1W
3841 ©	4822 051 30101	100Ω	5%	0,06W
3844 ©	4822 051 30471	470Ω	5%	0,06W
3845 ©	4822 051 30471	470Ω	5%	0,06W
3846 ©	4822 051 30472	4,7kΩ	5%	0,06W
3849 ©	4822 051 20471	470Ω	5%	0,1W
3851 ©	4822 117 12955	2,7kΩ	1%	0,1W
3853 ©	4822 051 30102	1kΩ	5%	0,06W
3854 ©	4822 051 30103	10kΩ	5%	0,06W
3855 ©	4822 051 10102	1kΩ	2%	0,25W
3856 ©	4822 051 30103	10kΩ	5%	0,06W
3857 ©	4822 051 30471	470Ω	5%	0,06W
3858 ©	4822 051 30109	10Ω	5%	0,06W
3859 ©	4822 117 13608	4,7Ω	5%	0,06W
3860 ©	4822 051 20109	10Ω	5%	0,1W
3861 ©	4822 051 30101	100Ω	5%	0,06W
3862 ⚠	4822 052 10478	4,7Ω	5%	NFR
3863 ©	4822 051 20471	470Ω	5%	0,1W
3864 ©	4822 051 20101	100Ω	5%	0,1W
3865 ©	4822 051 20471	470Ω	5%	0,1W
3866 ©	4822 051 20273	27kΩ	5%	0,1W
3867 ©	4822 051 20101	100Ω	5%	0,1W
3869 ©	4822 051 30333	33kΩ	5%	0,06W
3870 ©	4822 117 12925	47kΩ	1%	0,06W
3871 ©	4822 051 30472	4,7kΩ	5%	0,06W
3872 ©	4822 051 30102	1kΩ	5%	0,06W
3873 ⚠	4822 052 10228	2,2Ω	5%	0,33W
3874 ©	4822 051 30223	22kΩ	5%	0,06W
3875 ©	4822 117 11817	1,2kΩ	1%	0,06W
3876 ©	4822 051 30102	1kΩ	5%	0,06W
3877 ©	4822 051 30333	33kΩ	5%	0,06W
3878 ©	4822 117 12925	47kΩ	1%	0,06W
3879 ©	4822 051 30682	6,8kΩ	5%	0,06W
3881 ©	4822 051 20223	22kΩ	5%	0,1W
3882 ©	4822 117 10837	100kΩ	1%	0,1W
3883 ©	4822 051 30109	10Ω	5%	0,06W
3884 ©	4822 051 30472	4,7kΩ	5%	0,06W
3885 ©	4822 117 13632	100kΩ	1%	0,06W
3886 ©	4822 051 30339	33Ω	5%	0,06W
3887	4822 053 10228	2,2Ω	5%	1W
3888 ⚠	4822 052 10228	2,2Ω	5%	0,33W

RESISTORS

3890 ©	4822 051 30472	4,7kΩ	5%	0,06W
3891 ©	4822 117 13632	100kΩ	1%	0,06W
3892 ©	4822 117 11149	82kΩ	1%	0,1W
3893 ©	4822 117 13579	220kΩ	1%	0.1W
3899	4822 116 81154	2,2Ω	5%	0,5W

COILS

1802	2422 543 01068	RESONATOR 8MHZ

DIODES

6801 ©	9322 129 34685	BZX284-C3V9
6804 ©	4822 130 11397	BAS316
6805 ©	4822 130 11397	BAS316
6806 ©	4822 130 11397	BAS316
6807 ©	4822 130 11397	BAS316
6808 ©	4822 130 11397	BAS316
6809 ©	4822 130 11397	BAS316
6810 ©	4822 130 11397	BAS316
6811 ©	9340 548 52115	BZX284-C5V1
6812 ©	9340 548 47115	PDZ3.3B

TRANSISTORS

7811 ©	5322 130 60159	BC846B

INTEGRATED CIRCUITS

7800 ©	9352 642 17557	SAA7325H/M2B CD10/M2
7801 ©	9352 622 36118	TZA1025T/V2 HF-Amplifier
7802	4822 209 32852	TDA7073A/N2
7803	4822 209 32852	TDA7073A/N2
7813	5322 209 11306	HEF4094BT
7814 ©	4822 209 17345	M62320FP, I2C SHIFT REGISTER
7815	4822 209 32852	TDA7073A/N2
7816 ©	4822 209 33165	TDA1308T/N1